**Answer the questions below on graph paper.**

**You will need a straight edge.**

**Make sure the question number of each answer is clearly labeled.**

Given: The intercepts of a linear equation:   (0, -3) and (5, 0)

1.  What is the x-intercept?

2.  What is the y-intercept?

3.  What is the slope?

4.  Write the equation of the line in slope-intercept form: y = mx + b.

5.  Using an entire sheet of graph paper, draw and label x and y axes.  For all graphs, use a straight edge and label the graphed line with its equation.

6.  Graph the line described in  #1 – 4.

7.  Prove algebraically that the point (35, 18) lies on the line.

8.  Prove algebraically that the point (-30, -20) does not lie on the line.

9.  What is the value of y when x = -50?

10.  What is the value of x when y = -30?

11.     What would be the slope of a line parallel to this line?

12.     Graph a parallel line that passes through the point (0, 4).

13.     Label the line you just graphed with its equation.

14.     Graph a parallel line that passes through the point (-10, 2).

15.     Label the line you just graphed with its equation.

16.     What would be the slope of a line perpendicular to this line?

17.     Graph a perpendicular line that passes through the point (0, -6).

18.     Label the line you just graphed with its equation.

19.     Graph a perpendicular line that passes through the point (6, 1).

20.     Label the line you just graphed with its equation.